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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,975	08/05/2003	Thomas Kasztelan	P03,0285	6948

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SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
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CHICAGO, IL 60606-6473

EXAMINER
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DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
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2646

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,975

Applicant(s)

KASZTELAN ET AL.

Examiner

Phylesha L. Dabney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is in response to the response received on 26 September 2005 in which claims 1-16 are pending.

#### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “antenna coil wound around the microphone” of claims 1-2, “a shield plate or capsule encompassing the receiver with a coil wound around it” of claims 2 and 6, or a compensator and electronic compensator for counteracting the noise signal” of claims 15-16 limitation in the claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide support for the shielding capsule/plate of the Applicant's invention being made of any type of material as taught by claim 3.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to teach the antenna coil wound around the microphone. In addition, the specification fails to teach what effect or benefit the Applicant wants to achieve by winding the antenna coil around the microphone. Furthermore, the Applicant states that a compensation coil to counteract noise created by the receiver from interfering with the antenna

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signal; however, the Applicant does not teach the antenna coil used to prevent noise created by the microphone from interfering with the antenna signal.

The specification fails to teach the compensation coil wound around the receiver, a shield plate/capsule is applied thereafter, and then the antenna coil wound around the plate/capsule as taught by claim 6.

The specification fails to teach the planar element, i.e. shield *plate*, enclosing the receiver/microphone as taught by claims 1-2, and 6. Furthermore, the specification fails to teach the configuration of the invention such that the coil is able to wind around the planar element, i.e. shield *plate*.

The specification fails to teach the specific material composition of the shield capsule of claim 3, which is additionally applied to the receiver housing (specification, page 5).

The specification fails to teach a compensator and an electronic compensator useable together as taught by claims 15-16.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1-16, it is not understood how the antenna coil wound around the microphone interacts with the signal path such that it received the processed signal from the processor.

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With respect to claims 2 and 6, it is not understood how the planar element, i.e. shield plate, encloses the receiver/microphone as taught by claims 1-2, and 6.

With respect to claims 15-16, it is not understood how the compensator and the electronic compensator are useable together.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Wojcik et al (U.S. Patent No. 4,596,899).

Regarding claim 1, Wojcik teaches a hearing aid device configured to wirelessly transmit data between the hearing aid device (fig. 2) and a further device, comprising: a microphone (21) configured to acquire an acoustic input signal and transduce it into an electrical signal; a signal processing and control unit (24, col. 6 lines 32-37; 29-32) configured to process the electrical signal; a receiver (27) configured to transduce the electrical signal into an acoustic signal; and an antenna coil (50) that is wound around the receiver or the microphone, the antenna coil being configured to implement the wireless transmission of data which reads on the coil having electromagnetic transducing capabilities (col. 3 lines 15-46 and col. 6 lines 46-48).

Regarding claim 2, Wojcik teaches a hearing aid device configured to wirelessly transmit data between the hearing aid device (fig. 2) and a further device comprising: a microphone (21)

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configured to acquire an acoustic input signal and transduce it into an electrical signal; a signal processing and control unit (24, col. 6 lines 32-37; 29-32) configured to process the electrical signal; a receiver (27) configured to transduce the electrical signal into an acoustic signal; and at least one of a shielding plate or a shielding capsule (10, 20, 26, casing) that encloses the receiver, the antenna coil (50) being wound around the shielding plate or the shielding capsule which reads on the coil having electromagnetic transducing capabilities being wrapped around the casing (fig. 2; col. 3 lines 15-46 and col. 6 lines 46-48)..

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wojcik.

Regarding claim 3, Wojcik does not teach the hearing aid device according to claim 2, wherein the shielding capsule is comprised of ferrite material, mu-metal, or an iron sheet. However it is known to included a shielding capsule composed of iron composite for beneficially blocking interfering magnetic fields created by the receiver. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to included a shielding capsule in the invention of Wojcik for blocking magnetic fields.

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Claims 4-5, 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojcik in view of Husung (U.S. Patent No. 6,466,679).

Regarding claims 4 and 15, Wojcik does not teach the hearing aid device according to claim 1, further comprising: a compensator configured to compensate a noise signal generated by the receiver and transmitted to the antenna coil. Husung teaches a compensator (10) placed in the circuitry to beneficially suppress a noise signal (col. 2, lines 15-29). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a compensator coil as taught by Husung for suppressing noise.

Regarding claim 5 that depends from claim 4, see the rejection of claims 5 since the compensator used is a compensator coil (10).

Regarding claim 8, the combination of Wojcik and Husung teaches the hearing aid device according to claim 5, further comprising: a compensation circuit (Wojcik, items 30, 31, 33, Fig. 4 amplifier circuit, and col. 6 lines 33-37) that modifies an electric receiver input signal according to at least one of an amplitude (Wojcik, volume adjustment and amplifier) and phase. The primary reference, Wojcik of the combination, does not teach or restrict the placement of the compensation circuit in the circuit flow of hearing aid device. Husung teaches a circuit flow wherein the compensation circuit (8) feeds into the compensation coil for modifying the receiver signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to model the circuit flow of the combination of Wojcik and Husung after the further teaching of Husung for beneficially providing the compensation circuit prior to the compensation coil to modify the receiver signal.



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Regarding claims 9-10, the combination of Wojcik and Husung teaches the hearing aid device according to claim 8, wherein the compensation circuit utilized both an active filter (Wojcik, fig. 4, ic chips 41-42 on printed circuit board 24) and a passive filter (potentiometer, 30).

Regarding claims 11-12, the combination of Wojcik and Husung teaches the hearing aid device according to claim 9-10 respectfully, wherein the filter comprises filter parameters that can be statically selected where reads on the hearing aid device will provide a 20 dB gain for voice tones in the range of 350-3500 Hz (col. 7 lines 21-23).

Regarding claims 13-14, the combination of Wojcik and Husung teaches the hearing aid device according to claim 9-10 respectfully, wherein the filter comprises an adjustment mechanism (31, col. 6 lines 51-55) configured to permit filter parameters to be adaptively adjusted during operation.

### ***Conclusion***

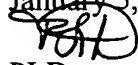
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L. Dabney whose telephone number is 571-272-7494. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 5, 2006

  
PLD



**SINH TRAN**  
**SUPERVISORY PATENT EXAMINER**